

effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight of less than 750,000 daltons, wherein the cells are selected from the group consisting of hematopoietic cells and dendritic-type cells and the administration of the form of hyaluronic acid causes the cells to be released from the bone marrow of the patent.

172. (New) The method of Claim 171 wherein the amount of the form of hyaluronic acid is at least about 6 mg/kg of patient body weight.

173. (New) The method of Claim 172 wherein the amount of the form of hyaluronic acid is at least about 12 mg/kg of patient body weight.

174. (New) The method of Claim 171 where in the form of hyaluronic acid has a molecular weight of 200,000 to 300,000 daltons.

175. (New) The method of Claim 171 wherein the form of hyaluronic acid has a molecular weight of 25,000 to 100,000 daltons.

176. (New) The method of Claim 171 wherein the form of hyaluronic acid is sodium hyaluronate.

177. (New) The method of Claim 171 wherein the hematopoietic cells are mast cell progenitors.

178. (New) A method for releasing cells from bone marrow and other tissue sites of a patient into the blood of the patient comprising administering to the patient an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight of 25,000 to 100,000 daltons, wherein the cells are selected from the group consisting of hematopoietic cells and dendritic-type cells.

179. (New) The method of Claim 178 wherein the form of hyaluronic acid is sodium hyaluronate.

180. (New) The method of Claim 178 wherein the amount of the form of hyaluronic acid is at least about 1.5 mg/kg of patient body weight.

181. (New) A method of releasing cells from bone marrow and other tissues of a patient comprising administering to the patient a plurality of dosages comprising:

(a) a priming dosage of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons in an amount of less than about 3 mg/kg patient body weight, and following predetermined intervals,

(b) one or more additional dosages of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons in an amount of at least about 1.5 mg/kg patient body weight, wherein the cells are selected from the group consisting of hematopoietic cells and dendritic-type cells.

182. (New) The method of Claim 181 wherein the predetermined interval is a week.

183. (New) The method of Claim 181 wherein the form of hyaluronic acid in the priming dosage or the additional dosage is sodium hyaluronate.

184. (New) The method of Claim 181 wherein the form of hyaluronic acid in the priming dosage or the additional dosage has a molecular weight of about 320,000 daltons.

185. (New) The method of Claim 181 wherein the additional dosage comprises a form of hyaluronic acid in the amount of at least about 6 mg/kg patient body weight.

186. (New) The method of Claim 181 wherein the priming dosage is in the amount of 1.5 mg/kg patient body weight.

187. (New) The method of Claim 186 wherein additional dosages comprising 3mg/kg patient body weight, 6 mg/kg patient body weight, and 12 mg/kg patient body weight are administered to the patient following weekly intervals.

188. (New) A method of releasing cells from bone marrow of a patient into the circulation system of the patient comprising administering a dosage consisting essentially of an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof to the patient, wherein the cells are selected from the group consisting of hematopoietic cells and dendritic-type cells.

189. (New) The method of Claim 188 wherein the amount of the form of hyaluronic acid is at least about 6 mg/kg of patient body weight.

190. (New) The method of Claim 189 wherein the amount of the form of hyaluronic acid is at least about 12 mg/kg of patient body weight.

191. (New) The method of Claim 188 where in the form of hyaluronic acid has a molecular weight of 200,000 to 300,000 daltons.

192. (New) The method of Claim 188 wherein the form of hyaluronic acid has a molecular weight of 25,000 to 100,000 daltons.

193. (New) The method of Claim 188 wherein the form of hyaluronic acid is sodium hyaluronate.

194. (New) The method of Claim 188 wherein the hematopoietic cells are mast cell progenitors.

195. (New) A method of transplanting stem cells into a patient comprising:

(i) administering to a stem cell donor an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons to increase the concentration of stem cells in the blood of the individual,

(ii) harvesting the stem cells to be transplanted from peripheral blood of the donor, and

(iii) transplanting the harvested stem cells into the patient.

196. (New) The method of Claim 195 wherein the donor is the same as the patient.

197. (New) The method of Claim 195 wherein the donor is not the same as the patient.

198. (New) A method of treating allergy or asthma comprising administering to a patient showing symptoms of allergy or asthma an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons.

199. (New) A method of treating a patient having low levels of red blood cells comprising administering to the patient a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons.

200. (New) A method of harvesting tissue for organ transplantation comprising infusing into a patient in need of an organ transplant an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and

pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons.

201. (New) A method of mobilizing cells in an *ex vivo* organ comprising:

- (i) providing an *ex vivo* organ that has been harvested from a patient,
- (ii) infusing an effective amount of a hyaluronic acid form selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons into the *ex vivo* organ.

202. (New) A method of treating organ rejection comprising infusing into a patient showing signs of immunologic rejection of an organ graft an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons.

203. (New) A method of treating a patient in need of an increase in the number of stem cells in peripheral blood comprising administering to the patient an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons, wherein the form of hyaluronic acid causes stem cells to be released from bone marrow or other tissues of the patient into blood of the patient.

204. (New) A method of increasing the number of stem cells in the blood of a patient comprising administering to the patient an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons.